Risk Management

INSCOM Safety

FY 04

What is Risk Management?

A process which will:

- ✔ Identify risks
- ✔ Weigh costs versus benefits
- ✔ Eliminate unnecessary risk

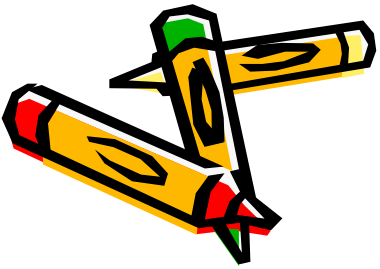
Three rules of risk management

- ➳ Benefits must exceed Cost
- ➳ Accept no unnecessary Risk
- ➳ Decisions must be made at the appropriate Level

Risk Management Process

Risk Management Worksheet

- Required for all operations/training
- Completed during planning phase
- Reviewed before operations/training



Risk Management Process

Step 1: Identify Hazards

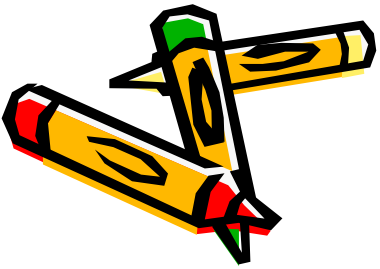
- **Identify Hazards Ask yourself:**
  What can happen to me, my family or my friends if I continue this course of action?

Step 1 – Identify Hazards

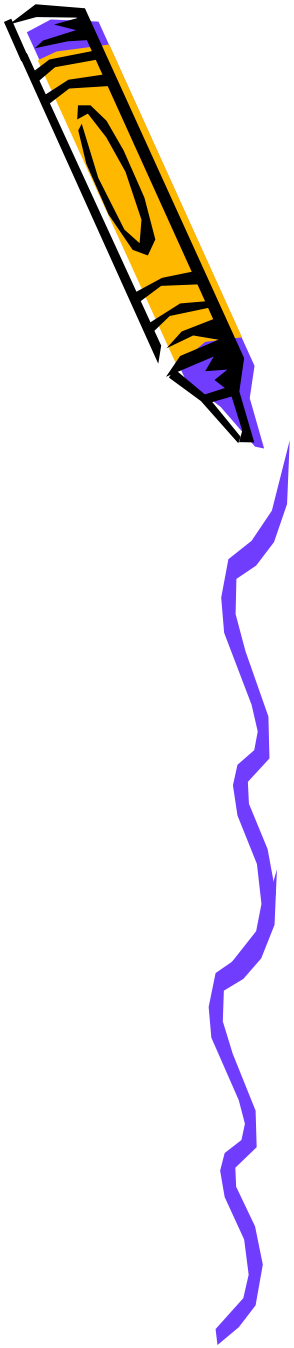
Key Definitions

- **Hazard** - any real or potential condition that can cause injury, illness or death of personnel, or damage to, or loss of equipment or property, or mission degradation.

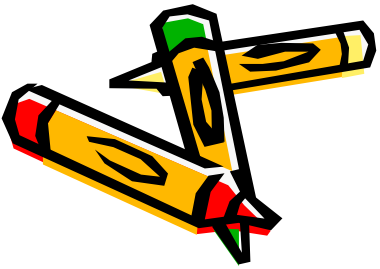
- **Risk** - chance of hazard or bad consequences; exposure to chance of injury or loss.



When Identifying Hazards



- Make it simple---Make it COMPLETE
- Methods:
  - Brain storming
  - Experts
  - Publications
  - Accident information
  - Scenario thinking
  - Consider:
    - What can go wrong
    - What can I do about it
    - If I can’t do anything----who do I tell

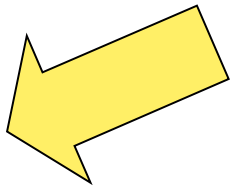


What is a Hazard?

RISK MANAGEMENT WORKSHEET

Operation/Training Event:
Organization: Date:
Prepared by:

HAZARD **Move to and Occupy Range/ Move to Garrison at EOM**	ASSESS HAZARDS	CONTROLS IMPLEMENTED	DETERMINE RESIDUAL RISK LEVEL	IMPLEMENT CONTROLS
AMV/ACV Accident during movement resulting in disabled vehicle and injury of personnel Vehicle damage and personnel injury due to rollover as a result of improper training, road hazards				



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RISK ACCEPTANCE: type signature block, and sign
RESIDUAL OVERALL RISK: EXTREMELY HIGH HIGH MODERATE LOW

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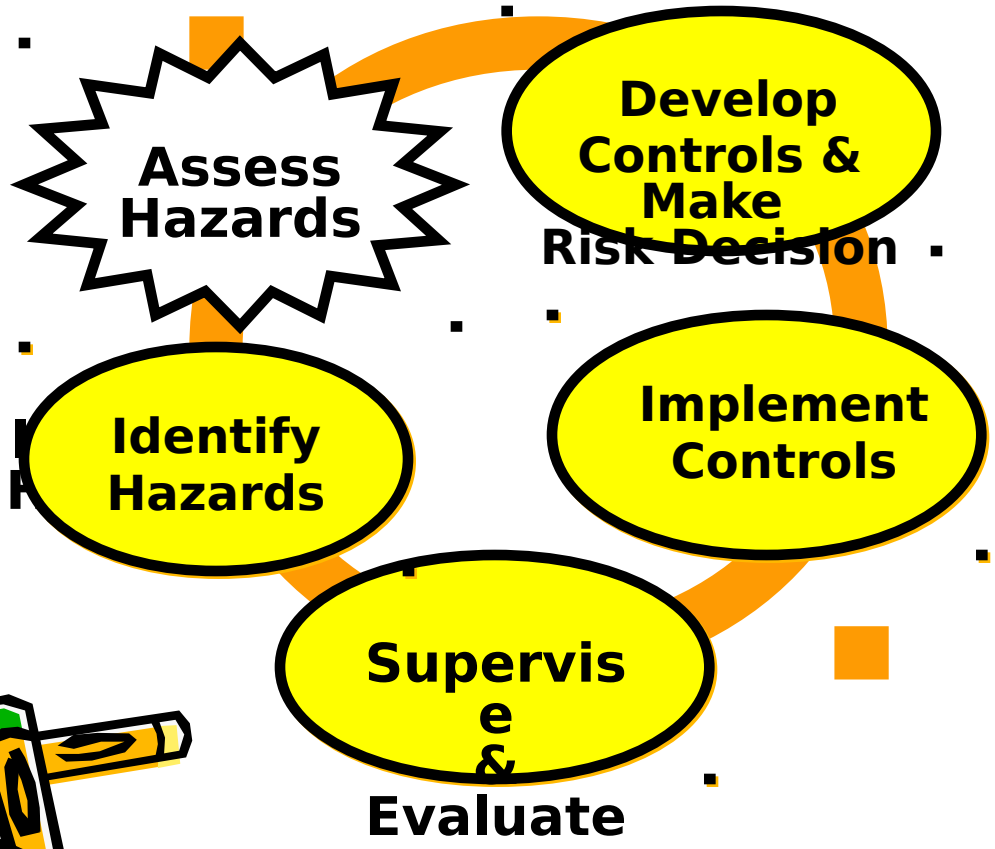
Risk Management Process

Step 2: Assess Hazards

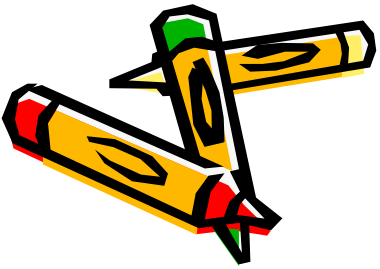


- **Assess Hazards**

  Ask yourself:
  Will this kill or injure me, my family or my friends?

Step 2 – Assess Hazards

- Determine each hazard's risk level before controls are in place. (Initial risk level)
- Assess:
  - **The probability that an accident will occur because of the hazard.**
  - **The most likely result of such an accident.**
  - **The overall risk level of each hazard.**
  - **The overall operation initial risk level.**



RISK MANAGEMENT WORKSHEET

Operation/Training Event:
Organization: Date:
Prepared by:

HAZARD **Move to and Occupy Range/ Move to Garrison at EOM**	INITIAL RISK LEVEL	CONTROLS IMPLEMENTED	RESIDUAL RISK LEVEL	IMPLEMENT CONTROLS
AMV/ACV Accident during movement resulting in disabled vehicle and injury of personnel	HIGH Catastrophic & Seldom			
Vehicle damage and personnel injury due to rollover as a result of improper training, road hazards	HIGH Catastrophic & Seldom			

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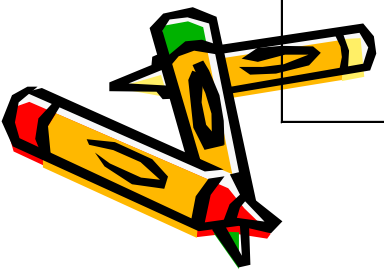
Risk Probability

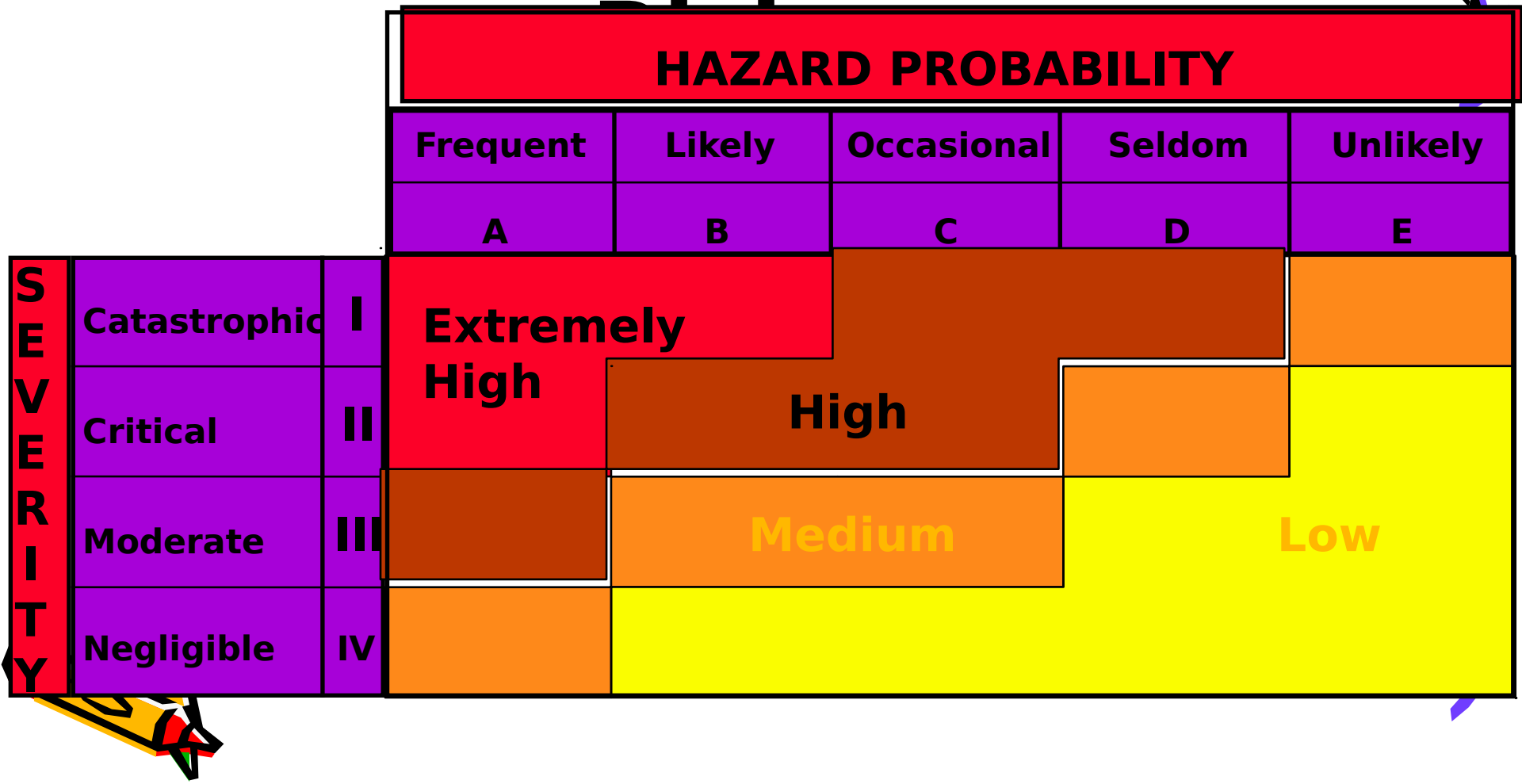
Frequent	**Individual:** occurs repeatedly in career **All:** continuously experienced
Likely	**Individual:** occurs often in career **All:** occurs frequently
Occasional	**Individual:** occurs sometime in career **All:** occurs sporadically or several times
Seldom	**Individual:** remote chance of occurance **All:** expected to occur sometime
Unlikely	**Individual:** probably will not occur in career **All:** possible but not probable, rare

Risk Severity

Catastrophic	Death or permanent total disability, system loss, major property damage
Critical	Permanent partial disability, temporary total disability in excess of 3 months, major system damage, significant property damage
Marginal	Minor injury, lost workday accident, compensable injury or illness, minor system damage, minor property damage
Negligible	First aid or minor supportive medical treatment, minor system impairment, minor property damage

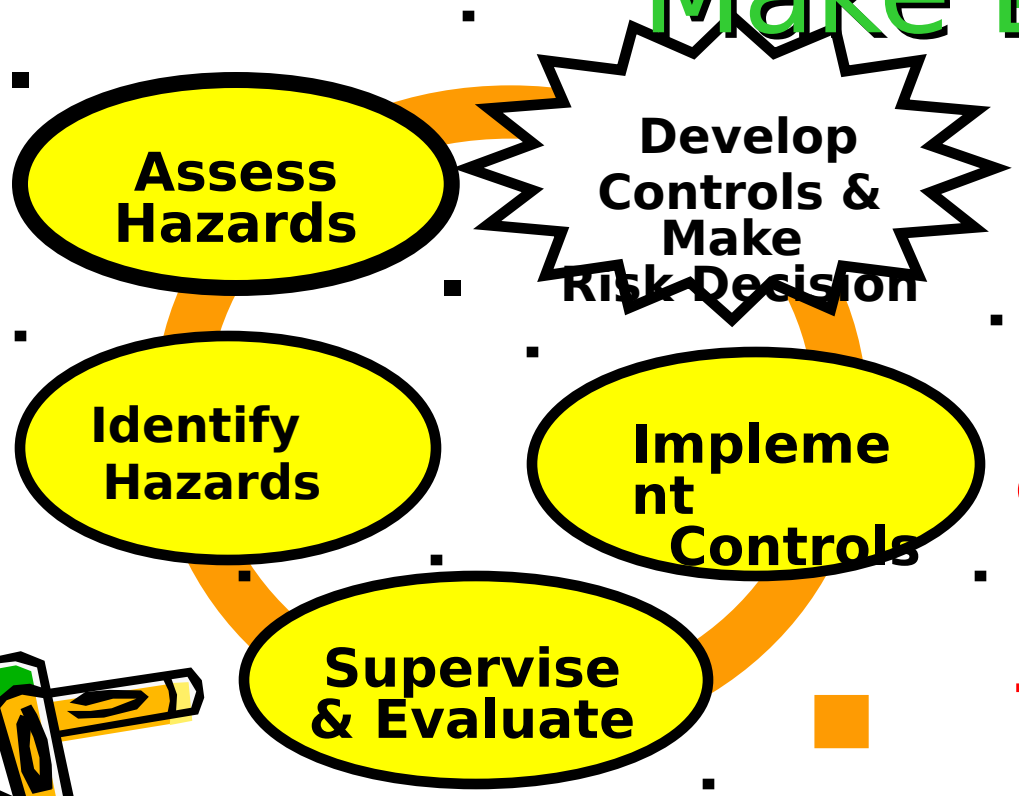


Severity vs. Probability Initial & Residual



Risk Management Process

Step 3: Develop Controls & Make Decision



Develop Controls and Make Risk Decisions

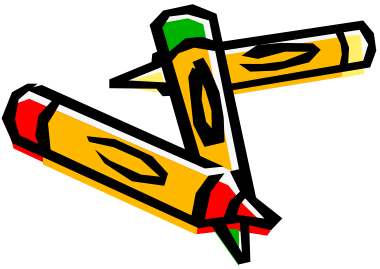
Ask yourself:

What can I do to prevent injury to me, my family or my friends?

Is this course of

Step 3 – Develop Controls, Assess Residual Risk and Make Risk Decision

- Develop specific controls for each hazard.
- Do not lump controls together for multiple hazards.
- Be specific – don’t reference other documents.



RISK MANAGEMENT WORKSHEET

Operation/Training Event:
Organization: Date:
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HAZARD **Move to and Occupy Range/ Move to Garrison at EOM**	INITIAL RISK LEVEL	CONTROLS IMPLEMENTED	RESIDUAL RISK LEVEL	IMPLEMENT CONTROLS
AMV/ACV Accident during movement resulting in disabled vehicle and injury of personnel	HIGH Catastrophic & Seldom	*Key LDRs recon route prior to convoy *TCPs posted along route with commo to warn of bad conditions *TCPs w/warning triangles/ red chemlites * Leaders conduct Convoy/Movement briefings with speed/interval/catch-up/breakdown covered *ETC.....		
Vehicle damage and personnel injury due to rollover as a result of improper training, road hazards	HIGH Catastrophic & Seldom	*TCs/BCs positively control movement *Commanders, PLT LDRs schedule time for rollover drills, ensure they are conducted *Crews brief and practice rollover drills *Crews wear seatbelts, properly stow gear to prevent/minimize injuries *ETC.....		

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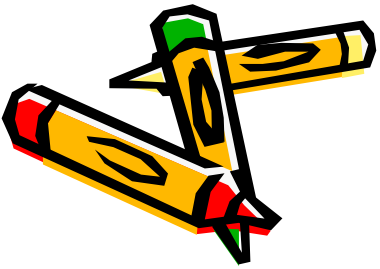
Step 3 – Develop Controls, Assess Residual Risk and Make Risk Decision



- Controls should result in reduction of severity, or probability or both
- If there is no reduction re-look the controls

RISK MANAGEMENT WORKSHEET

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Vehicle damage and personnel injury due to rollover as a result of improper training, road hazards	HIGH Catastrophic & Seldom	*TCs/BCs positively control movement *Commanders, PLT LDRs schedule time for rollover drills, ensure they are conducted *Crews brief and practice rollover drills *Crews wear seatbelts, properly stow gear to prevent/minimize injuries *ETC.....	Moderate Catastrophic & Unlikely	

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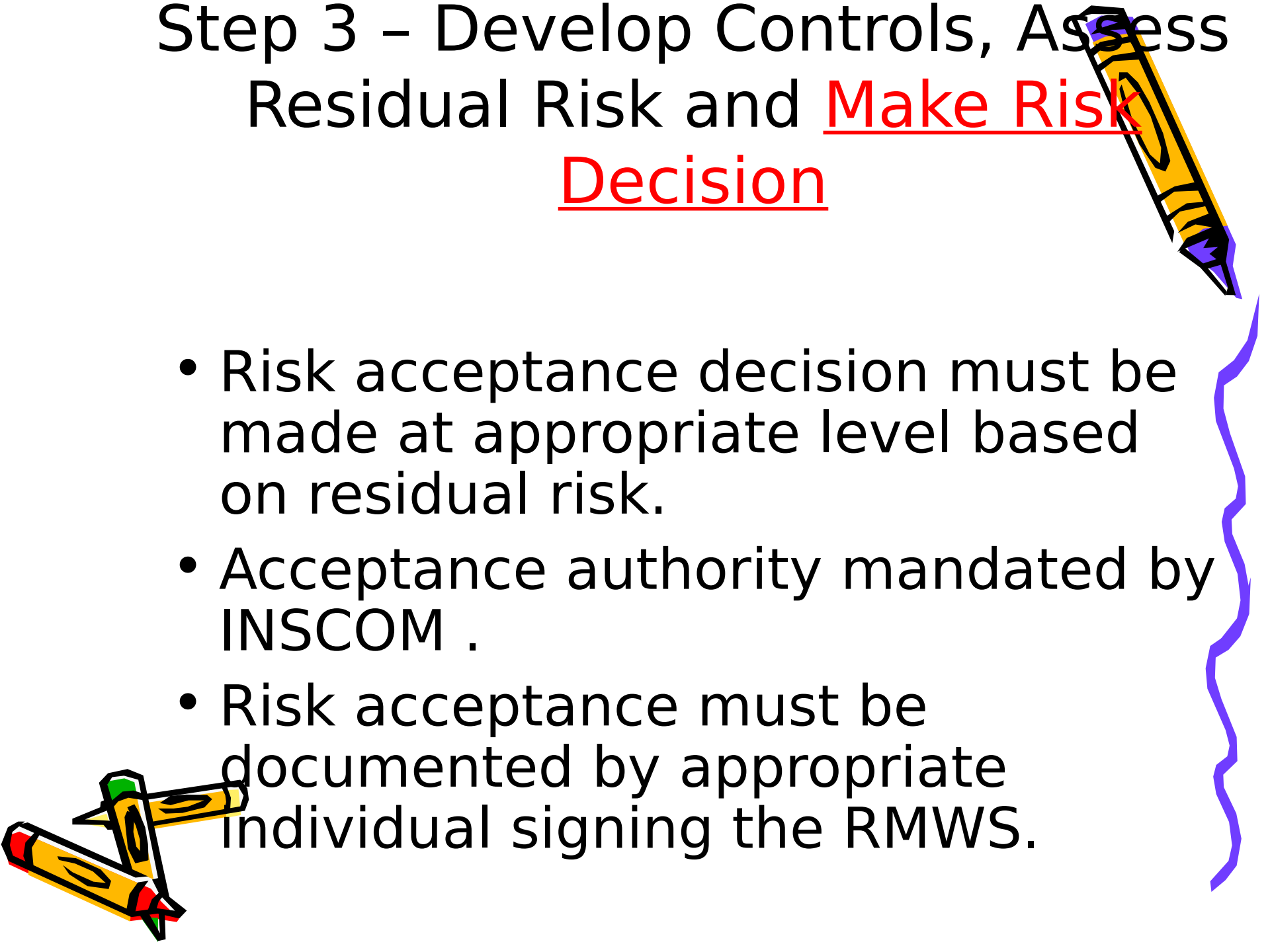
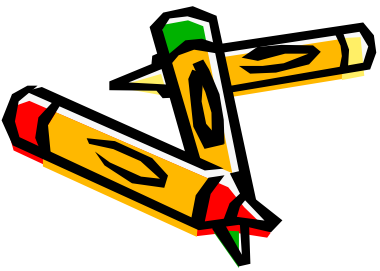
Step 3 – Develop Controls, Assess Residual Risk and Make Risk Decision



- Risk acceptance decision must be made at appropriate level based on residual risk.
- Acceptance authority mandated by INSCOM .
- Risk acceptance must be documented by appropriate individual signing the RMWS.

Decision Levels - Residual Risk

Extreme risk	Commanding General level
High risk	Brigade/group commander or appropriate level
Moderate risk	Major unit commander or appropriate level
Low risk	As determined by major unit commander



Risk Management Process

Step 4: Implement Controls

- **Implement Controls**

Ask yourself:

What can I do to prevent injury to myself, my family or my friends?

Step 4 – Implement Controls

- Assign responsibility for implementation of controls.
- Communicate requirements to all involved.
- Incorporate into mission documents and briefings.
  - **SOPs**
  - **Orders**
  - **Briefings and back-briefs**
  - **Training**
  - **Rehearsals**

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Vehicle damage and personnel injury due to rollover as a result of improper training, road hazards	HIGH Catastrophic & Seldom	*TCs/BCs positively control movement *Commanders, PLT LDRs schedule time for rollover drills, ensure they are conducted *Crews brief and practice rollover drills *Crews wear seatbelts, properly stow gear to prevent/minimize injuries *ETC.....	Moderate Catastrophic & Unlikely	*Convoy CDRs brief *Continuous Supervision by TC/BC/VC and Convoy CDR *Verbal and Written Instructions (OPORD & brief) *ETC.....

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Risk Management Process

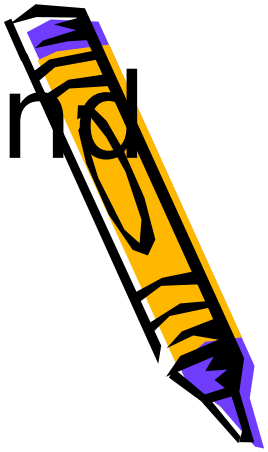
Step 5: Supervise & Evaluate

- **Supervise and Evaluate**

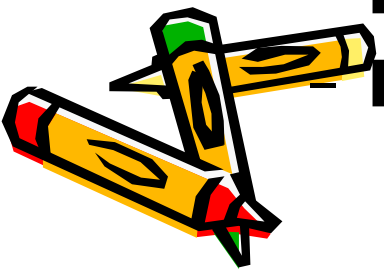
Take control of the situation. Be responsible.

You can prevent accidents by your actions and decisions!

Step 5 – Supervise and Evaluate



- Supervise
  - **All soldiers are responsible for:**
    - **Performing to standard**
    - **Executing controls**
    - **Recognizing unsafe acts and conditions**
  - **Leaders are also responsible for enforcement**
- Evaluate
  - **Effectiveness of controls (adjust/update)**
  - **Feedback - AARs**



Unsafe Acts

WHO NEEDS HAZCOM TRAINING?

DON'T TAKE UNNECESSARY CHANCES

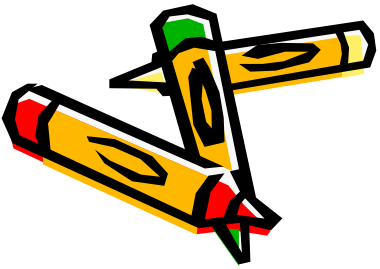
Remember

Risk Management Process

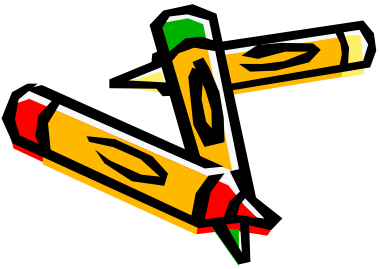
CONSIDER: ACCIDENT CAUSE FACTORS

Human Error - 80%

an individual's actions or performance is different than what is required and results in or contributes to an accident.



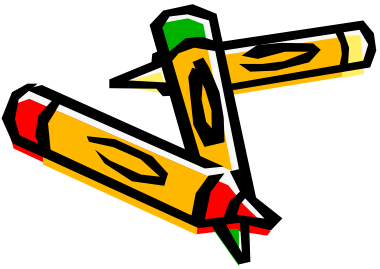
ACCIDENT CAUSE FACTORS



Materiel Failure/Malfunction - 5%

a fault in the equipment that keeps it from working as designed, therefore causing or contributing to an accident.

ACCIDENT CAUSE FACTORS



Environmental Conditions - 15%
any natural or manmade surroundings that negatively affect performance of individuals, equipment or materiel and causes or
contributes to an accident.

SOURCES *of* HUMAN ERROR

Individual - 48%

Soldier knows and is trained to standard but *elects* not to follow the standard (self-discipline).

Example

Soldier knows there is a requirement to be certified on servicing tires and although he isn't certified, he attempts to service the tire anyway so he won't have

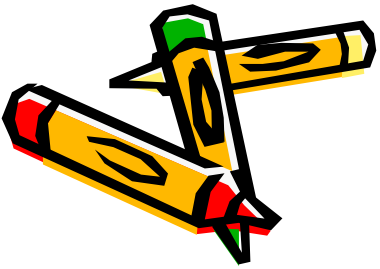
SOURCES *of* HUMAN ERROR

Leader - 18%

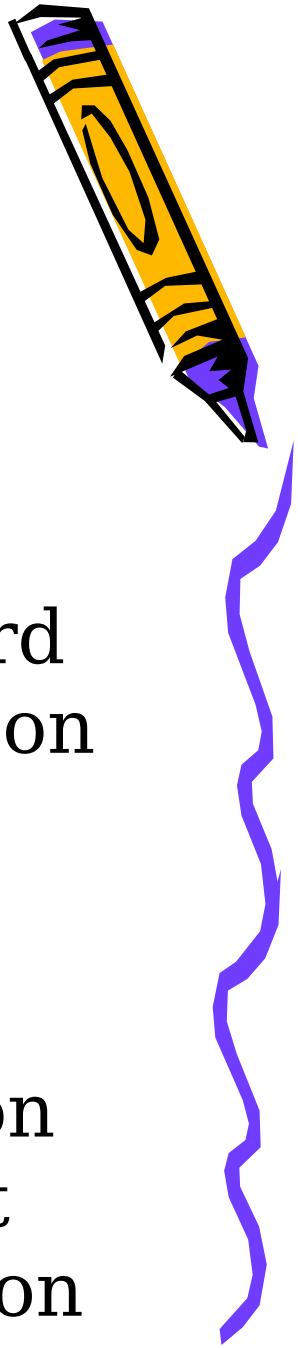
Leader does not enforce known standard.

Example

Leader sees the unqualified soldier changing the tire and doesn’t stop him.



SOURCES *of* HUMAN ERROR



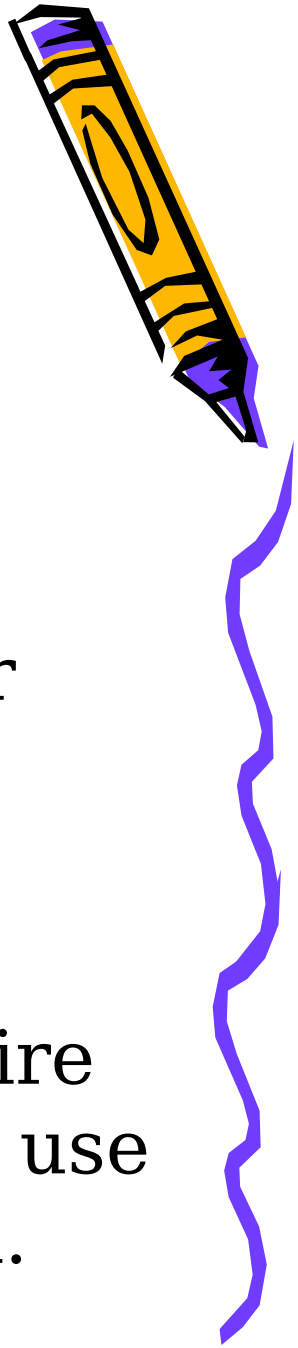
Training - 18%

Soldier not trained to known standard (insufficient, incorrect or no training on task).

Example

Soldier has never had any training on how to service split rims and didn't know that a tire cage and air extension is required for inflation.

SOURCES *of* HUMAN ERROR



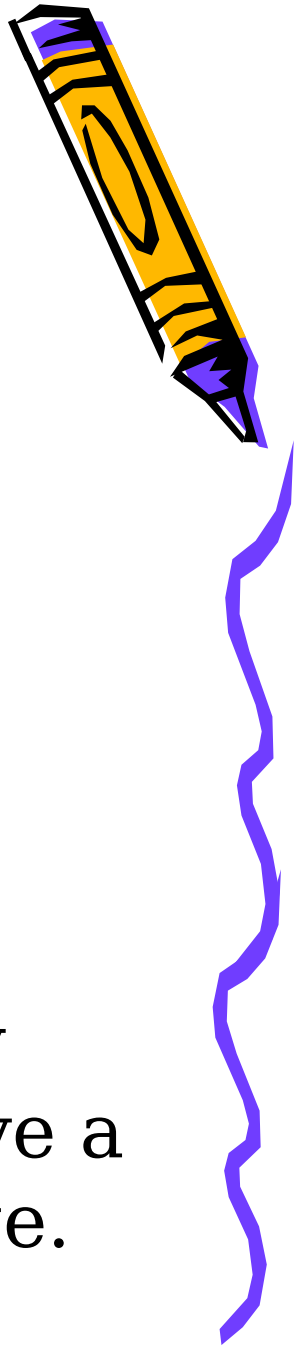
Standards - 8%

Standards/procedures not clear or practical, or do not exist.

Example

The unit SOP requires the use of a tire cage, however it does not require the use of a twelve foot air gage extension.

SOURCES *of* HUMAN ERROR



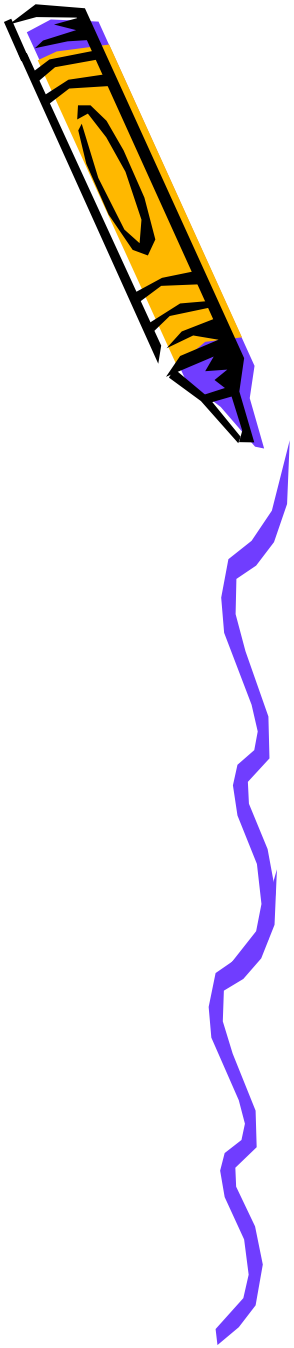
Support - 8%

Equipment/material improperly designed resources/not provided.

Example

The unit tire cage was not properly constructed and the unit does not have a twelve foot extension for the air gage.

Stop Worrying…It Does Add Up



Individual	**48%**
Leader	**18%**
Training	**18%**
Standards	**8%**
Support	**8%**
= Total	**100%**